

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

In re:)
)
)

REMBRANDT TECHNOLOGIES, LP)
PATENT LITIGATION)
)
)
_____)

MDL Docket No. 07-md-1848 (GMS)
CHIEF JUDGE GREGORY M. SLEET

**PARTIES' JOINT CLAIM CONSTRUCTION CHART
FOR U.S. PATENT 5,243,627**

/s/ Collins J. Seitz, Jr. .

Collins J. Seitz, Jr., Esquire (#2237)
Francis DiGiovanni, Esquire (#3189)
Connolly Bove Lodge & Hutz LLP
1007 N. Orange Street
P.O. Box 2207
Wilmington, Delaware 19899
(302) 658-9141
cseitz@cblh.com
fdigiovanni@cblh.com

*Attorneys for Rembrandt Technologies, LP and
Rembrandt Technologies, LLC d/b/a Remstream*

/s/ Jack B. Blumenfeld .

Jack B. Blumenfeld (#1014)
Karen Jacobs Loudon (#2881)
Morris, Nichols, Arsht & Tunnell, LLP
1201 N. Market Street
P.O. Box 1347
Wilmington, DE 19899
(302) 658-9200
jblumenfeld@mnat.com
klouden@mnat.com

Liaison Co-Counsel for All Other Parties

In re: REMBRANDT TECHNOLOGIES, LP PATENT LITIGATION
MDL Docket No. 07-md-1848 (GMS)

JOINT CLAIM CONSTRUCTION CHART FOR THE '627 PATENT

Claim Limitation	Claim at Issue	Parties' Agreed Construction¹
means for applying the stream of trellis encoded signal points to a transmission channel	Claims 21, 22	Means plus function, to be construed per 35 U.S.C. § 112, ¶ 6 <u>Function</u> : Applying the stream of trellis encoded signal points to a transmission channel. <u>Structure</u> : A modulator.
means for receiving input information,	Claims 21, 22	Means plus function, to be construed per 35 U.S.C. § 112, ¶ 6 <u>Function</u> : Receiving input information. <u>Structure</u> : Input component of a transmitter apparatus.
means for receiving the stream of trellis encoded signal points from the channel,	Claims 21, 22	Means plus function, to be construed per 35 U.S.C. § 112, ¶ 6 <u>Function</u> : Receiving the stream of trellis encoded signal points from the channel. <u>Structure</u> : Input component of a receiver apparatus.

¹ The parties jointly and respectfully submit that, if the Court deems it appropriate, the Court include the agreed-upon claim construction in its Claim Construction Order, or in the alternative, that this agreed upon construction is a binding stipulation between the parties.

In re: REMBRANDT TECHNOLOGIES, LP PATENT LITIGATION
MDL Docket No. 07-md-1848 (GMS)

JOINT CLAIM CONSTRUCTION CHART FOR THE ‘627 PATENT

Italicized: Rembrandt’s proposed terms
Underlined: All Other Parties’ proposed terms

‘627 Patent Claim	Element	Claim Term	REMBRANDT		ALL OTHER PARTIES	
			CONSTRUCTION	INTRINSIC EVIDENCE	CONSTRUCTION	INTRINSIC EVIDENCE
1(a)	An apparatus for forming a stream of trellis encoded signal points in response to input information, said apparatus comprising	<i><u>signal point</u></i>	A value that is transmitted by a modulator in one signaling interval.	Abstract; Figs. 1, 2, 3, 4, 5, 6, and 7; 2:5-50; 3:4-4:51; 5:1-6:26; 6:48-9:66; Claims 3-5, 8, 13-15, 18, and 22-24.	A point on a 2-dimensional constellation having a pair of coordinates representing two components of a corresponding signal.	2:5-13; 2:53-55; 3:4-4:24; 4:54-56; 5:1-66; 8:18-26; 8:61-64; 9:8-15; Figs. 1, 2, 3 & 4.
1(b)	means for generating a plurality of streams of trellis encoded channel symbols in response to respective portions of said input information, each of said channel symbols being comprised of a plurality of signal points, and	<i>trellis encoded channel symbol</i>	A set of one or more trellis encoded signal points that corresponds to a group of bits that is treated as a unit by an encoding system.	Abstract; Figs. 1, 2, 3, 4, 5, 6, and 7; 1:34-2:2; 2:30-2:50; 2:61-3:60; 4:9-11; 5:1-41; 6:46-10:3; Claims 3-5, 8, 13-15, 18, and 22-24.	See construction of: “trellis encoded channel symbol ... comprised of a plurality of signal points.”	See intrinsic evidence for “trellis encoded channel symbol ... comprised of a plurality of signal points”
		<u>trellis encoded channel symbol ... comprised of a plurality of signal points</u>	A set of two or more trellis encoded signal points that corresponds to a group of bits that is treated as a unit by an encoding system.	Abstract; Figs. 1, 2, 3, 4, 5, 6, and 7; 1:34-2:2; 2:30-2:50; 2:61-3:3; 3:56-60; 4:9-11; 5:1-41; 6:46-10:3; Claims 3-5, 8, 13-15, 18, and 22-24.	Two or more signal points all selected using the same group of parallel input bits as expanded once by a trellis encoder.	1:8-15; 1:41-58; 2:5-13; 2:59-4:24; 4:46-51 (citing Wei paper); 4:52-5:30; 8:18-19; 8:22-23; 8:61-64; 9:14-23; Figs. 3, 4 & 5; Abstract.

In re: REMBRANDT TECHNOLOGIES, LP PATENT LITIGATION
MDL Docket No. 07-md-1848 (GMS)

JOINT CLAIM CONSTRUCTION CHART FOR THE ‘627 PATENT

‘627 Patent Claim	Element	Claim Term	REMBRANDT		ALL OTHER PARTIES	
			CONSTRUCTION	INTRINSIC EVIDENCE	CONSTRUCTION	INTRINSIC EVIDENCE
		<u>stream[] of trellis encoded channel symbols</u>	A sequence of trellis encoded channel symbols.	Abstract; Figs. 1, 2, 3, 4, 5, 6, and 7; 1:34-2:2; 2:30-2:50; 2:61-3:3; 3:56-60; 4:9-11; 5:1-41; 6:46-10:3; Claims 3-5, 8, 13-15, 18, and 22-24.	A sequence of trellis encoded channel symbols in which each symbol’s signal points are adjacent.	1:34-2:13; 5:1-30; 5:37-41; 5:64-66; 6:46-8:2; 9:14-23; Figs. 3 & 5.
		<u>signal point</u>	See claim 1(a) above.	See claim 1(a) above.	See claim 1(a) above.	See claim 1(a) above.
		<u>means for generating a plurality of streams of trellis encoded channel symbols in response to respective portions of said input information</u>	Means plus function, to be construed per 35 U.S.C. § 112, ¶ 6 <u>Function:</u> Generating a plurality of streams of trellis encoded channel symbols in response to respective portions of said input information. <u>Structure:</u> A distributed trellis encoder that implements multiple trellis encoding processes operating on respective portions of input information.	Abstract; Figs. 3, 4, 5, 6, and 7; 1:59-62; 4:52-5:41; 9:4-8; 9:52-66; Claims 2-5, 8, 12-15, 18, and 22-24; Refer also to intrinsic evidence cited in “trellis encoded channel symbol” and “trellis encoded channel symbol ... comprised of a plurality of signal points.”	Means plus function, to be construed per 35 U.S.C. § 112, ¶ 6 <u>Function:</u> Generating a plurality of streams of trellis encoded channel symbols in response to respective portions of said input information. <u>Structure:</u> Parallel trellis encoders and an encoder that generates signal points.	5:1-30; 9:14-23; Fig. 3.

In re: REMBRANDT TECHNOLOGIES, LP PATENT LITIGATION
MDL Docket No. 07-md-1848 (GMS)

JOINT CLAIM CONSTRUCTION CHART FOR THE '627 PATENT

'627 Patent Claim	Element	Claim Term	REMBRANDT		ALL OTHER PARTIES	
			CONSTRUCTION	INTRINSIC EVIDENCE	CONSTRUCTION	INTRINSIC EVIDENCE
1(c)	means for interleaving the signal points of said generated channel symbols to form said stream of trellis encoded signal points, said interleaving being carried out in such a way that the signal points of each channel symbol are non-adjacent in said stream of trellis encoded signal points and such that the signal points of adjacent symbols in any one of said channel symbol streams are non-adjacent in said stream of trellis encoded signal points.	<u>means for interleaving the signal points of said generated channel symbols to form said (a) stream of trellis encoded signal points</u>	Means plus function, to be construed per 35 U.S.C. § 112, ¶ 6 <u>Function</u> : Interleaving the signal points of said generated channel symbols to form said stream of trellis encoded signal points. <u>Structure</u> : Signal point interleaver and/or a switching circuit, or a processor programmed to interleave the signal points of the trellis encoded channel symbols.	Fig. 3 (337, 341), Fig. 5, and Fig. 6 (641); 1:59-62; 5:1-47; 6:46-9:66; Claims 1-5, 8-9, 11-15, 18-19, and 21-24; Refer also to intrinsic evidence cited in "trellis encoded channel symbol," "trellis encoded channel symbol ... comprised of a plurality of signal points," and "signal point."	Means plus function, to be construed per 35 U.S.C. § 112, ¶ 6 <u>Function</u> : Interleaving the signal points of said generated channel symbols to form said stream of trellis encoded signal points. <u>Structure</u> : Signal Point Interleaver 341 including delay element 3411 or Signal Point Interleaver 641 including delay elements 6411, 6412 and 6413.	2:5-13; 5:24-41; 6:46-8:2; 9:14-44; Figs. 3 & 6; Abstract.
		<u>signal point</u>	See claim 1(a) above.	See claim 1(a) above.	See claim 1(a) above.	See claim 1(a) above.

In re: REMBRANDT TECHNOLOGIES, LP PATENT LITIGATION
MDL Docket No. 07-md-1848 (GMS)

JOINT CLAIM CONSTRUCTION CHART FOR THE '627 PATENT

'627 Patent Claim	Element	Claim Term	REMBRANDT		ALL OTHER PARTIES	
			CONSTRUCTION	INTRINSIC EVIDENCE	CONSTRUCTION	INTRINSIC EVIDENCE
2	The apparatus of claim 1 wherein said means for generating generates three of said streams of trellis encoded channel symbols, and wherein said means for interleaving causes there to be interleaved between each of the signal points of each channel symbol at least two signal points from other channel symbols of said streams of trellis encoded channel symbols.	<u>[contains several terms construed elsewhere in this chart]</u>				
9(a)	Receiver apparatus for recovering information from a received stream of trellis encoded signal points, said	<u>receiver apparatus</u>	A device that receives a transmission signal.	Fig. 4; 1:62-65; 2:39-42; 5:48-6:45; 9:52-66; Claim 20.	A device that demodulates a received signal and recovers information in the form of a serial bit stream.	2:39-42; 2:55-57; 4:47-59; 5:42-6:45; Fig. 4.

In re: REMBRANDT TECHNOLOGIES, LP PATENT LITIGATION
MDL Docket No. 07-md-1848 (GMS)

JOINT CLAIM CONSTRUCTION CHART FOR THE '627 PATENT

'627 Patent Claim	Element	Claim Term	REMBRANDT		ALL OTHER PARTIES	
			CONSTRUCTION	INTRINSIC EVIDENCE	CONSTRUCTION	INTRINSIC EVIDENCE
	signal points having been transmitted to said receiver apparatus by transmitter apparatus which generates said signal points by generating a plurality of streams of trellis encoded channel symbols in response to respective portions of said information, each of said channel symbols being comprised of a plurality of signal points, and by interleaving the signal points of said generated channel symbols to form said stream of trellis encoded signal points, said interleaving being	<u>signal point</u>	See claim 1(a) above.	See claim 1(a) above.	See claim 1(a) above.	See claim 1(a) above.
		<u>interleaving the signal points of said generated channel symbols to form said stream of trellis encoded signal points</u>	To interleave signal points of trellis encoded channel symbols to form a stream of trellis encoded signal points.	Abstract; Figs. 3, 5, and 6; 5:1-47; 6:46-9:44; 9:52-66; Claims 1-5, 8-9; 11-15, 18-19, and 21-24; Refer also to intrinsic evidence cited in "trellis encoded channel symbol," "trellis encoded channel symbol ... comprised of a plurality of signal points," and "signal point."	Separating the adjacent signal points of each generated trellis encoded channel symbol using other signal points.	2:5-13; 5:24-41; 6:46-8:2; 9:14-44; 10:24-28; 11:60-64; Figs. 3, 5 & 6.
		<u>trellis encoded channel symbol</u>	See claim 1(b) above.	See claim 1(b) above.	See claim 1(b) above.	See claim 1(b) above.

In re: REMBRANDT TECHNOLOGIES, LP PATENT LITIGATION
MDL Docket No. 07-md-1848 (GMS)

JOINT CLAIM CONSTRUCTION CHART FOR THE '627 PATENT

'627 Patent Claim	Element	Claim Term	REMBRANDT		ALL OTHER PARTIES	
			CONSTRUCTION	INTRINSIC EVIDENCE	CONSTRUCTION	INTRINSIC EVIDENCE
	carried out in such a way that the signal points of each channel symbol are non-adjacent in said stream of trellis encoded signal points and such that the signal points of adjacent symbols in any one of said channel symbol streams are non-adjacent in said stream of trellis encoded signal points, said receiver apparatus comprising	<u>trellis encoded channel symbol ... comprised of a plurality of signal points</u>	See claim 1(b) above.	See claim 1(b) above.	See claim 1(b) above.	See claim 1(b) above.
		<u>stream[] of trellis encoded channel symbols</u>	See claim 1(b) above.	See claim 1(b) above.	See claim 1(b) above.	See claim 1(b) above.

In re: REMBRANDT TECHNOLOGIES, LP PATENT LITIGATION
MDL Docket No. 07-md-1848 (GMS)

JOINT CLAIM CONSTRUCTION CHART FOR THE ‘627 PATENT

‘627 Patent Claim	Element	Claim Term	REMBRANDT		ALL OTHER PARTIES	
			CONSTRUCTION	INTRINSIC EVIDENCE	CONSTRUCTION	INTRINSIC EVIDENCE
9(b)	means for deinterleaving the interleaved signal points to recover said plurality of streams of trellis encoded channel symbols, and	<u>means for deinterleaving the interleaved signal points to recover said plurality of streams of trellis encoded channel symbols</u>	Means plus function, to be construed per 35 U.S.C. § 112, ¶ 6 <u>Function</u> : Deinterleaving the interleaved signal points to recover said plurality of streams of trellis encoded channel symbols. <u>Structure</u> : Signal point deinterleaver and/or a switching circuit, or a processor programmed to deinterleave the interleaved signal points.	Fig. 4 (431, 441) and Fig. 7 (741); 1:62-2:2; 5:67-6:45; 9:52-66; Claims 2-5, 8, 12-15, 18, and 22-24; Refer also to intrinsic evidence cited in “trellis encoded channel symbol,” “trellis encoded channel symbol ... comprised of a plurality of signal points,” and “signal point.”	Means plus function, to be construed per 35 U.S.C. § 112, ¶ 6 <u>Function</u> : Deinterleaving the interleaved signal points to recover said plurality of streams of trellis encoded channel symbols. <u>Structure</u> : Signal Point Deinterleaver 441 including delay element 4411 or Signal Point Deinterleaver 741 including delay elements 7411, 7412 and 7413.	2:5-13; 5:67-6:13; 6:46-8:2; 9:45-51; Figs. 4 & 7. See “means for interleaving . . .” 1(c) above and “stream[] of trellis encoded channel symbols” 1(b) above.
		<u>trellis encoded channel symbol</u>	See claim 1(b) above.	See claim 1(b) above.	See claim 1(b) above.	See claim 1(b) above.
		<u>stream[] of trellis encoded channel symbols</u>	See claim 1(b) above.	See claim 1(b) above.	See claim 1(b) above.	See claim 1(b) above.
		<u>signal point</u>	See claim 1(a) above.	See claim 1(a) above.	See claim 1(a) above.	See claim 1(a) above.

In re: REMBRANDT TECHNOLOGIES, LP PATENT LITIGATION
MDL Docket No. 07-md-1848 (GMS)

JOINT CLAIM CONSTRUCTION CHART FOR THE ‘627 PATENT

‘627 Patent Claim	Element	Claim Term	REMBRANDT		ALL OTHER PARTIES	
			CONSTRUCTION	INTRINSIC EVIDENCE	CONSTRUCTION	INTRINSIC EVIDENCE
9(c)	a distributed Viterbi decoder for recovering said information from the deinterleaved signal points.	<i>distributed Viterbi decoder</i>	A Viterbi decoder having multiple Viterbi decoding processes operating on separate portions of a stream of data to be decoded.	Abstract; Figs. 3, 4, 5, 6, and 7; 1:34-2:20; 4:52-5:41; 6:12-26; 6:48-8:13; 8:57-9:28; 9:52-66; Prosecution History; and Office Action Response dated Dec. 21, 1992 at TKHR0000886 – TKHR0000890.	See construction of: “distributed Viterbi decoder for recovering (to recover) said information from the deinterleaved signal points”	See intrinsic evidence for “distributed Viterbi decoder for recovering (to recover) said information from the deinterleaved signal points”
		<u>distributed Viterbi decoder for recovering (to recover) said information from the deinterleaved signal points</u>	A Viterbi decoder having multiple Viterbi decoding processes operating on separate portions of a stream of deinterleaved signal points to recover the information encoded therein.	Abstract; Figs. 3, 4, 5, 6, and 7; 1:34-2:2; 4:52-5:41; 5:67-6:45; 6:48-8:13; 8:14-56; 8:57-9:28; 9:29-51; 9:52-66; Claims 2-5, 8, 12-15, 18, and 22-24; Prosecution History; and Office Action Response dated December 21, 1992 at TKHR0000886 – TKHR0000890.	Multiple stage decoder in which each stage receives all of the deinterleaved signal points of a trellis encoded channel symbol before deciding their values together using the Viterbi algorithm.	1:34-2:2 (citing Betts ‘625); 4:64-68; 6:12-26; 8:36-56; 8:64-66; 9:61-66; Fig. 4.
		<u>signal point</u>	See claim 1(a) above.	See claim 1(a) above.	See claim 1(a) above.	See claim 1(a) above.

In re: REMBRANDT TECHNOLOGIES, LP PATENT LITIGATION
MDL Docket No. 07-md-1848 (GMS)

JOINT CLAIM CONSTRUCTION CHART FOR THE '627 PATENT

'627 Patent Claim	Element	Claim Term	REMBRANDT		ALL OTHER PARTIES	
			CONSTRUCTION	INTRINSIC EVIDENCE	CONSTRUCTION	INTRINSIC EVIDENCE
10(a)	The apparatus of claim 9 further comprising a phase tracking loop, and					
10(b)	means for adapting the operation of said phase tracking loop in response to minimum accumulated path metrics in said distributed Viterbi decoder.	<i>distributed Viterbi decoder</i>	See claim 9(c) above.	See claim 9(c) above.	See claim 9(c) above.	See claim 9(c) above.
11(a)	A method for forming a stream of trellis encoded signal points in response to input information, said method comprising the steps of	<u><i>signal point</i></u>	See claim 1(a) above.	See claim 1(a) above.	See claim 1(a) above.	See claim 1(a) above.
11(b)	generating a plurality of streams of trellis encoded	<i>trellis encoded channel symbol</i>	See claim 1(b) above.	See claim 1(a) above.	See claim 1(b) above.	See claim 1(b) above.

In re: REMBRANDT TECHNOLOGIES, LP PATENT LITIGATION
MDL Docket No. 07-md-1848 (GMS)

JOINT CLAIM CONSTRUCTION CHART FOR THE '627 PATENT

'627 Patent Claim	Element	Claim Term	REMBRANDT		ALL OTHER PARTIES	
			CONSTRUCTION	INTRINSIC EVIDENCE	CONSTRUCTION	INTRINSIC EVIDENCE
	channel symbols in response to respective portions of said input information, each of said channel symbols being comprised of a plurality of signal points, and	<u>trellis encoded channel symbol ... comprised of a plurality of signal points</u>	See claim 1(b) above.	See claim 1(b) above.	See claim 1(b) above.	See claim 1(b) above.
		<u>stream[] of trellis encoded channel symbols</u>	See claim 1(b) above.	See claim 1(b) above.	See claim 1(b) above.	See claim 1(b) above.
		<u>signal point</u>	See claim 1(a) above.	See claim 1(a) above.	See claim 1(a) above.	See claim 1(a) above.

In re: REMBRANDT TECHNOLOGIES, LP PATENT LITIGATION
MDL Docket No. 07-md-1848 (GMS)

JOINT CLAIM CONSTRUCTION CHART FOR THE '627 PATENT

'627 Patent Claim	Element	Claim Term	REMBRANDT		ALL OTHER PARTIES	
			CONSTRUCTION	INTRINSIC EVIDENCE	CONSTRUCTION	INTRINSIC EVIDENCE
11(c)	interleaving the signal points of said generated channel symbols to form said stream of trellis encoded signal points, said interleaving being carried out in such a way that the signal points of each channel symbol are non-adjacent in said stream of trellis encoded signal points and such that the signal points of adjacent symbols in any one of said channel symbol streams are non-adjacent in said stream of trellis encoded signal points.	<u>interleaving the signal points of said generated channel symbols to form said stream of trellis encoded signal points</u>	See claim 9(a) above.	See claim 9(a) above.	See claim 9(a) above.	See claim 9(a) above.
		<u>signal point</u>	See claim 1(a) above.	See claim 1(a) above.	See claim 1(a) above.	See claim 1(a) above.

In re: REMBRANDT TECHNOLOGIES, LP PATENT LITIGATION
MDL Docket No. 07-md-1848 (GMS)

JOINT CLAIM CONSTRUCTION CHART FOR THE '627 PATENT

'627 Patent Claim	Element	Claim Term	REMBRANDT		ALL OTHER PARTIES	
			CONSTRUCTION	INTRINSIC EVIDENCE	CONSTRUCTION	INTRINSIC EVIDENCE
12	The method of claim 11 wherein said generating step generates three of said streams of trellis encoded channel symbols, and wherein said interleaving step causes there to be interleaved between each of the signal points of each channel symbol at least two signal points from other channel symbols of said streams of trellis encoded channel symbols.	<u>[contains several terms construed elsewhere in this chart]</u>				
19(a)	A method for use in a receiver to recover information from a received stream of	<u>receiver apparatus</u>	See claim 9(a) above.	See claim 9(a) above.	See claim 9(a) above.	See claim 9(a) above.

In re: REMBRANDT TECHNOLOGIES, LP PATENT LITIGATION
MDL Docket No. 07-md-1848 (GMS)

JOINT CLAIM CONSTRUCTION CHART FOR THE '627 PATENT

'627 Patent Claim	Element	Claim Term	REMBRANDT		ALL OTHER PARTIES	
			CONSTRUCTION	INTRINSIC EVIDENCE	CONSTRUCTION	INTRINSIC EVIDENCE
	trellis encoded signal points, said signal points having been transmitted to said receiver apparatus by a method which includes the steps of	<u>signal point</u>	See claim 1(a) above.	See claim 1(a) above.	See claim 1(a) above.	See claim 1(a) above.
19(b)	generating a plurality of streams of trellis encoded channel symbols in response to respective portions of said information, each of said channel symbols being comprised of a plurality of signal points, and	<u>trellis encoded channel symbol</u>	See claim 1(b) above.	See claim 1(b) above.	See claim 1(b) above.	See claim 1(b) above.
		<u>trellis encoded channel symbol ... comprised of a plurality of signal points</u>	See claim 1(b) above.	See claim 1(b) above.	See claim 1(b) above.	See claim 1(b) above.
		<u>stream[] of trellis encoded channel symbols</u>	See claim 1(b) above.	See claim 1(b) above.	See claim 1(b) above.	See claim 1(b) above.
		<u>signal point</u>	See claim 1(a) above.	See claim 1(a) above.	See claim 1(a) above.	See claim 1(a) above.

In re: REMBRANDT TECHNOLOGIES, LP PATENT LITIGATION
MDL Docket No. 07-md-1848 (GMS)

JOINT CLAIM CONSTRUCTION CHART FOR THE '627 PATENT

'627 Patent Claim	Element	Claim Term	REMBRANDT		ALL OTHER PARTIES	
			CONSTRUCTION	INTRINSIC EVIDENCE	CONSTRUCTION	INTRINSIC EVIDENCE
19(c)	interleaving the signal points of said generated channel symbols to form said stream of trellis encoded signal points, said interleaving being carried out in such a way that the signal points of each channel symbol are non-adjacent in said stream of trellis encoded signal points and such that the signal points of adjacent symbols in any one of said channel symbol streams are non-adjacent in said stream of trellis encoded signal points, said method comprising the steps of	<u>interleaving the signal points of said generated channel symbols to form said stream of trellis encoded signal points</u>	See claim 9(a) above.	See claim 9(a) above.	See claim 9(a) above.	See claim 9(a) above.
		<u>signal point</u>	See claim 1(a) above.	See claim 1(a) above.	See claim 1(a) above.	See claim 1(a) above.

In re: REMBRANDT TECHNOLOGIES, LP PATENT LITIGATION
MDL Docket No. 07-md-1848 (GMS)

JOINT CLAIM CONSTRUCTION CHART FOR THE '627 PATENT

'627 Patent Claim	Element	Claim Term	REMBRANDT		ALL OTHER PARTIES	
			CONSTRUCTION	INTRINSIC EVIDENCE	CONSTRUCTION	INTRINSIC EVIDENCE
19(d)	deinterleaving the interleaved signal points to recover said plurality of streams of trellis encoded channel symbols, and	<u>deinterleaving the interleaved signal points to recover said plurality of streams of trellis encoded channel symbols</u>	To reverse the process of interleaving performed in the transmitter to recover multiple streams of trellis encoded channel symbols from the interleaved signal points.	Abstract; Figs. 4 and 7; 5:67-6:45; 9:52-66; Claims 2-5, 8, 12-15, 18, and 22-24; Refer also to intrinsic evidence cited in "trellis encoded channel symbol," "trellis encoded channel symbol ... comprised of a plurality of signal points," and "signal point."	Restoring the adjacency of the separated signal points of each trellis encoded channel symbol to recover the two or more streams of trellis encoded channel symbols.	2:5-13; 5:48-6:3; 6:46-8:2; 9:45-51; Figs. 4 & 7. See "stream[] of trellis encoded channel symbols" 1(b) above and "interleaving the signal points. . ." 9(a) above.
		<u>trellis encoded channel symbol</u>	See claim 1(b) above.	See claim 1(b) above.	See claim 1(b) above.	See claim 1(b) above.
		<u>stream[] of trellis encoded channel symbols</u>	See claim 1(b) above.	See claim 1(b) above.	See claim 1(b) above.	See claim 1(b) above.
		<u>signal point</u>	See claim 1(a) above.	See claim 1(a) above.	See claim 1(a) above.	See claim 1(a) above.
19(e)	using a distributed Viterbi decoder to recover said	<i>distributed Viterbi decoder</i>	See claim 9(c) above.	See claim 9(c) above.	See claim 9(c) above.	See claim 9(c) above.

In re: REMBRANDT TECHNOLOGIES, LP PATENT LITIGATION
MDL Docket No. 07-md-1848 (GMS)

JOINT CLAIM CONSTRUCTION CHART FOR THE '627 PATENT

'627 Patent Claim	Element	Claim Term	REMBRANDT		ALL OTHER PARTIES	
			CONSTRUCTION	INTRINSIC EVIDENCE	CONSTRUCTION	INTRINSIC EVIDENCE
	information from the deinterleaved signal points.	<u>distributed Viterbi decoder for recovering (to recover) said information from the deinterleaved signal points</u>	See claim 9(c) above.	See claim 9(c) above.	See claim 9(c) above.	See claim 9(c) above.
		<u>signal point</u>	See claim 1(a) above.	See claim 1(a) above.	See claim 1(a) above.	See claim 1(a) above.
20	The method of claim 19 wherein said receiver includes a phase tracking loop and wherein said method comprises the further step of adapting the operation of said phase tracking loop in response to minimum accumulated path metrics in said distributed Viterbi decoder.	<u>[contains several terms construed elsewhere in this chart]</u>				

In re: REMBRANDT TECHNOLOGIES, LP PATENT LITIGATION
MDL Docket No. 07-md-1848 (GMS)

JOINT CLAIM CONSTRUCTION CHART FOR THE '627 PATENT

'627 Patent Claim	Element	Claim Term	REMBRANDT		ALL OTHER PARTIES	
			CONSTRUCTION	INTRINSIC EVIDENCE	CONSTRUCTION	INTRINSIC EVIDENCE
21(a)	Data communication apparatus comprising:					
21(b)	means for receiving input information,	<u>means for receiving input information</u>	See Parties' Agreed Construction above.	Figs. 1 and 3; 2:55-58; 4:57-59.	See Parties' Agreed Construction above.	2:53-60; 4:52-61; Figs. 1 & 3.
21(c)	means for generating a plurality of streams of trellis encoded channel symbols in response to respective portions of said input information, each of said channel symbols being comprised of a plurality of signal points, and	<u>signal point</u>	See claim 1(a) above.	See claim 1(a) above.	See claim 1(a) above.	See claim 1(a) above.
		<u>trellis encoded channel symbol</u>	See claim 1(b) above.	See claim 1(b) above.	See claim 1(b) above.	See claim 1(b) above.
		<u>trellis encoded channel symbol ... comprised of a plurality of signal points</u>	See claim 1(b) above.	See claim 1(b) above.	See claim 1(b) above.	See claim 1(b) above.
		<u>stream[] of trellis encoded channel symbols</u>	See claim 1(b) above.	See claim 1(b) above.	See claim 1(b) above.	See claim 1(b) above.

In re: REMBRANDT TECHNOLOGIES, LP PATENT LITIGATION
MDL Docket No. 07-md-1848 (GMS)

JOINT CLAIM CONSTRUCTION CHART FOR THE '627 PATENT

'627 Patent Claim	Element	Claim Term	REMBRANDT		ALL OTHER PARTIES	
			CONSTRUCTION	INTRINSIC EVIDENCE	CONSTRUCTION	INTRINSIC EVIDENCE
		<u>means for generating a plurality of streams of trellis encoded channel symbols in response to respective portions of said input information</u>	See claim 1(b) above.	See claim 1(b) above.	See claim 1(b) above.	See claim 1(b) above.
21(d)	means for interleaving the signal points of said generated channel symbols to form a stream of trellis encoded signal points, said interleaving being	<u>means for interleaving the signal points of said generated channel symbols to form said (a) stream of trellis encoded signal points</u>	See claim 1(c) above.	See claim 1(c) above.	See claim 1(c) above.	See claim 1(c) above.

In re: REMBRANDT TECHNOLOGIES, LP PATENT LITIGATION
MDL Docket No. 07-md-1848 (GMS)

JOINT CLAIM CONSTRUCTION CHART FOR THE '627 PATENT

'627 Patent Claim	Element	Claim Term	REMBRANDT		ALL OTHER PARTIES	
			CONSTRUCTION	INTRINSIC EVIDENCE	CONSTRUCTION	INTRINSIC EVIDENCE
	carried out in such a way that the signal points of each channel symbol are non-adjacent in said stream of trellis encoded signal points and such that the signal points of adjacent symbols in any one of said channel symbol streams are non-adjacent in said stream of trellis encoded signal points,	<u>signal point</u>	See claim 1(a) above.	See claim 1(a) above.	See claim 1(a) above.	See claim 1(a) above.
21(e)	means for applying the stream of trellis encoded signal points to a transmission channel,	<u>means for applying the stream of trellis encoded signal points to a transmission channel</u>	See Parties' Agreed Construction above.	Figs. 1 and Fig. 3:38-42; 4:1-3, 4:63-64; 8: 38-42; 9:52-66.	See Parties' Agreed Construction above.	3:38-42; 4:62-64; Figs. 1 & 3.
		<u>signal point</u>	See claim 1(a) above.	See claim 1(a) above.	See claim 1(a) above.	See claim 1(a) above.

In re: REMBRANDT TECHNOLOGIES, LP PATENT LITIGATION
MDL Docket No. 07-md-1848 (GMS)

JOINT CLAIM CONSTRUCTION CHART FOR THE '627 PATENT

'627 Patent Claim	Element	Claim Term	REMBRANDT		ALL OTHER PARTIES	
			CONSTRUCTION	INTRINSIC EVIDENCE	CONSTRUCTION	INTRINSIC EVIDENCE
21(f)	means for receiving the stream of trellis encoded signal points from the channel,	<u>means for receiving the stream of trellis encoded signal points from the channel</u>	See Parties' Agreed Construction above.	Fig. 4; 5:44-56; 9:52-66.	See Parties' Agreed Construction above.	5:48-56; Fig. 4.
		<u>signal point</u>	See claim 1(a) above.	See claim 1(a) above.	See claim 1(a) above.	See claim 1(a) above.
21(g)	means for deinterleaving the interleaved signal points to recover said plurality of streams of trellis encoded channel symbols, and	<u>means for deinterleaving the interleaved signal points to recover said plurality of streams of trellis encoded channel symbols</u>	See claim 9(b) above.	See claim 9(b) above.	See claim 9(b) above.	See claim 9(b) above.
		<u>trellis encoded channel symbol</u>	See claim 1(b) above.	See claim 1(b) above.	See claim 1(b) above.	See claim 1(b) above.
		<u>stream[] of trellis encoded channel symbols</u>	See claim 1(b) above.	See claim 1(b) above.	See claim 1(b) above.	See claim 1(b) above.
		<u>signal point</u>	See claim 1(a) above.	See claim 1(a) above.	See claim 1(a) above.	See claim 1(a) above.

In re: REMBRANDT TECHNOLOGIES, LP PATENT LITIGATION
MDL Docket No. 07-md-1848 (GMS)

JOINT CLAIM CONSTRUCTION CHART FOR THE '627 PATENT

'627 Patent Claim	Element	Claim Term	REMBRANDT		ALL OTHER PARTIES	
			CONSTRUCTION	INTRINSIC EVIDENCE	CONSTRUCTION	INTRINSIC EVIDENCE
21(h)	a distributed Viterbi decoder for recovering said information from the deinterleaved signal points.	<i>distributed Viterbi decoder</i>	See claim 9(c) above.	See claim 9(c) above.	See claim 9(c) above.	See claim 9(c) above.
		<u>distributed Viterbi decoder for recovering (to recover) said information from the deinterleaved signal points</u>	See claim 9(c) above.	See claim 9(c) above.	See claim 9(c) above.	See claim 9(c) above.
		<u>signal point</u>	See claim 1(a) above.	See claim 1(a) above.	See claim 1(a) above.	See claim 1(a) above.
22	The apparatus of claim 21 wherein said means for generating generates three of said streams	<u>stream[] of trellis encoded channel symbols</u>	See claim 1(b) above.	See claim 1(b) above.	See claim 1(b) above.	See claim 1(b) above.
		<u>signal point</u>	See claim 1(a) above.	See claim 1(a) above.	See claim 1(a) above.	See claim 1(a) above.

In re: REMBRANDT TECHNOLOGIES, LP PATENT LITIGATION
MDL Docket No. 07-md-1848 (GMS)

JOINT CLAIM CONSTRUCTION CHART FOR THE '627 PATENT

'627 Patent Claim	Element	Claim Term	REMBRANDT		ALL OTHER PARTIES	
			CONSTRUCTION	INTRINSIC EVIDENCE	CONSTRUCTION	INTRINSIC EVIDENCE
	of trellis encoded channel symbols, and wherein said interleaving step causes there to be interleaved between each of the signal points of each channel symbol at least two signal points from other channel symbols of said streams of trellis encoded channel symbols.	<u>trellis encoded channel symbol</u>	See claim 1(b) above.	See claim 1(b) above.	See claim 1(b) above.	See claim 1(b) above.

/jc